

House of Representatives Committee on Ways and Means
Hearing on “Tax Reform and the U.S. Manufacturing Sector”
(Hearing held July 19, 2012)

Statement for the Record
by
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The Semiconductor Industry Association SIA (“SIA”) appreciates this opportunity to submit comments to the Committee on Ways and Means (“Committee”) in respect of the Committee’s July 19, 2012 hearing on “Tax Reform and the U.S. Manufacturing Sector” and how the current tax system affects U.S. manufacturers and how comprehensive tax reform might affect their ability to expand and create jobs.

Background on SIA and the Semiconductor Industry

SIA is the voice of the U.S. semiconductor industry, America’s second top export industry over the period of 2006-11, and a bellwether measurement of the U.S. economy. Semiconductor innovations form the foundation for America’s \$1.1 trillion technology industry affecting a U.S. workforce of nearly six million. Founded in 1977 by five microelectronics pioneers, SIA unites over 60 companies that account for 80 percent of the semiconductor production of this country. SIA seeks to strengthen U.S. leadership of semiconductor design and manufacturing by working with Congress, the Administration and other key industry groups. SIA works to encourage policies and regulations that fuel innovation, propel business and drive international competition in order to maintain a thriving semiconductor industry in the United States. For more information, see www.sia-online.org.

America’s semiconductor industry is critical to our country’s economic growth and recovery. Semiconductors are the fundamental enabling technology for the modern economy and an essential component of our nation’s defense and homeland security, information and technology, global finance, transportation, health care, and many other sectors of our economy. Our industry serves very

competitive markets and is engaged in R&D, manufacturing, marketing and customer support functions all over the world. Yet today, it has approximately two-thirds of its wafer fabrication capacity located in the U.S., and more than 80% of sales are sourced outside the United States. Thus, we offer these comments from the perspective of U.S. headquartered companies in a leading U.S. export industry. We also comment from the perspective of a U.S. industry that spends 18 percent of its sales on R&D in 2011, a total of \$27 billion. This is one of the highest levels of investment in research and development of any sector of the economy.

Semiconductor companies generally fall into one of three business models. The first business model consists of companies that own and operate their own manufacturing facilities, which are located in the U.S. and other countries. These companies invest in operations that perform R&D related to proprietary product design and manufacturing processes, manufacturing and marketing. Their wafer fabrication facilities are in many cases multi-billion dollar investments representing the most advanced and most costly manufacturing operations in the world.

The second business model includes “fabless” semiconductor companies. These companies engage in product related R&D, design and marketing. They contract with other companies known as “foundries” to manufacture the wafers and perform assembly/test. This business model started about 25 years ago, when companies capable of manufacturing semiconductor devices from customer designs began to emerge. The evolution of this business model brought on a new era for the industry. Previously, a company did not have access to manufacturing capacity unless it invested a substantial amount of capital in wafer fabrication and assembly/test facilities. This was a significant barrier to entry into the semiconductor business. However, the evolution of semiconductor foundries and the fabless business model meant that small start-up companies with limited capital but the ability to develop and market creative new products, could become successful semiconductor companies.

The third business model is made up of those in the foundry business which engage in contract manufacturing for the companies engaged in the fabless business model. They do not develop and sell their own products in the marketplace. Foundries perform R&D related to manufacturing processes and manufacturing. In some instances they also help customers with product designs. The foundry business model began with foreign companies headquartered in Asia

and these companies have grown significantly. Today, foundries exist in both the U.S. and foreign locations, but currently most of their manufacturing services exist outside the U.S. However, U.S. based foundry manufacturing capacity is expected to grow significantly over the next few years.

Each of these different business models generates high-paying jobs. The average salary in the semiconductor industry is approximately \$100,000. In addition, the semiconductor industry produces significant levels of indirect employment through the supply chain of providers of capital equipment and basic materials. For this reason, countries around the world compete to attract investments by the semiconductor industry.

Countries Compete for Semiconductor Manufacturing

The presence of a healthy semiconductor industry, including R&D, engineering centers, and in particular wafer fabrication facilities, provides significant benefits to a country's economy, not only in the form of the economic value that comes from the presence of semiconductor companies, but also in the form of spillover benefits as a high-tech infrastructure and an engineering community evolve from the industry. The positive effects from the multiplier effect of these spillover benefits can be substantial.

Countries throughout the world are very much aware of these economic benefits and many of them have developed government incentives to attract investments in semiconductor manufacturing and R&D. These incentives appear in two forms.

- The first are incentives that are available to any company that meets the criteria under a statute, which would be similar to, for example, the tax credit for research and experimentation under the Internal Revenue Code. This type of incentive is aimed at the front end of the innovation process. Many countries have also adopted tax incentives for the back end of the innovation process. These incentives, referred to as patent and innovation boxes, typically provide low tax rates on the income stream, such as income from royalties or manufacturing, that flow from the IP that was developed.
- The second is incentives that are awarded on a discretionary basis to specific companies for proposed investments, where the companies go

through an application and selection process for the incentives, which would be similar to, for example, the process under which the Department of Energy has awarded tax credits under section 48C of the Code. Depending on the extent of a proposed investment, it is common for these incentives to include a broad package of benefits such as tax benefits (including income tax holidays for manufacturing), financing, subsidized utilities and technical training for employees.

The incentives offered by countries around the world can be significant. One analysis of the potential cost differential from operating a wafer fabrication facility in the U.S. versus a foreign location offering a typical package of incentives, including an income tax holiday, indicates that the foreign operation would enjoy a \$1 billion cost advantage over a ten-year period, and that about 70% of the savings would come from tax savings.ⁱ

Thus, our U.S.-based manufacturing faces competitive disadvantages on tax cost at two levels. First, as is widely known, the U.S. tax rate is not competitive. When Japan reduced its corporate rate in April 2012, the U.S. corporate statutory tax rate became the highest in the OECD and most emerging markets as well. A manufacturing facility in most of the OECD countries and the developing countries key to our industry will enjoy a tax rate lower than the U.S. rate (this is so even under the assumption that section 199 causes the relevant U.S. rate to be 32%).ⁱⁱ Second, foreign statutory rates are not relevant when comparing the tax cost associated with our U.S. manufacturing to the tax cost of a foreign operation that has been awarded company-specific incentives. In those cases, the foreign effective tax rate often approaches zero.

Criteria for Evaluating a Competitive Tax System

In addressing the competitive global landscape, SIA believes that it is important for the Committee and policymakers to understand that we should not focus on competitive comparisons between the tax cost environment for a company's operations in the U.S. to the environment for the operations of that company's foreign subsidiaries. Instead, the relevant debate should focus on comparisons of the tax cost applicable to the earnings of our foreign subsidiaries to the tax cost on the earnings of similarly situated foreign competitors, whether they be stand-alone companies or subsidiaries of parent companies headquartered elsewhere. The critical distinction here is that, under the tax systems of most countries, the

local country tax imposed upon the active earnings of a competitor, or the foreign subsidiary of a competitor, is the final tax cost imposed on the entity's earnings. In contrast, the active earnings of our subsidiaries are potentially subject to a second level of tax, i.e., U.S. tax, depending on whether those earnings are repatriated to the U.S. The current system also provides a foreign tax credit up to the U.S. corporate rate, for foreign taxes paid. This “world-wide” tax system has been in existence for decades and is inefficient in today’s global economy.

The competitive disadvantage of this system lies with the fact that potential foreign earnings are “locked out” of the U.S. economy because they are taxed on repatriation, albeit with a foreign tax credit for taxes paid. The competitive disadvantage of the current world-wide system would be worsened under an overly broad base erosion or a minimum tax proposal that would impose a new category of Subpart F income on the active earnings of our subsidiaries. Again, we urge the Committee to consider the effect of any tax reform proposal in the context of the competitive position of one of our foreign subsidiaries compared to that of a competitor in the same country, just across the street and engaged in the same business functions.

And we also submit to the Committee that this “company across the street” analogy is also relevant to the competitiveness of the U.S. as a manufacturing location for our industry, because of the importance of having a cost effective supply chain to customers. For example, in a typical product flow, the wafers produced from a U.S. fabrication facility may be destined for sale as finished semiconductor devices to customers in Asia. Those wafers may be shipped to an Asian subsidiary that completes assembly and testing processes, which yield marketable devices. Those devices may be shipped to another subsidiary to be held in inventory in a regional product distribution center that it operates. Other subsidiaries are based in the customers' countries and will assist customers with their product designs, engage in marketing and arrange logistics. They will obtain sales orders which ultimately result in shipments from the product distribution center to the customers. In this example, foreign subsidiaries have performed three critical downstream functions for the U.S. wafer fabrication facility. To the extent that the cost of these functions is higher than the cost experienced by peers who perform the same functions in the same countries, and that cost differential exists only because the parent company is headquartered in the U.S., the U.S. becomes a less attractive location for the wafer fabrication facility. The

higher downstream costs produce a drag on the earnings from the wafer fabrication facility.

How Tax Reform Can Improve the U.S. Manufacturing Environment

SIA supports tax reform that places our operations in a more competitive position both domestically and globally. We believe that advancing the competitiveness of U.S. companies should be the overriding goal of tax reform. There are probably several ways to achieve this goal. For example, there are advocates of the principle that the corporate rate should be as low as possible, and that special provisions of the Code that confer tax benefits on specific classes of taxpayers or activities should be eliminated, i.e., the Code should not be used as a means to pick winners and losers in our economy. On the other hand, there are advocates for using the Code to incentivize selected behaviors such as, for example, engaging in research or hiring employees, or for penalizing behaviors such as using debt instead of equity for financing, or developing intellectual property offshore. SIA sees some potential benefits to the U.S. manufacturing sector from either approach, so long as the end result advances the primary goal of creating a competitive tax cost environment for U.S. companies.

With that goal in mind, we offer our three priorities for fundamental tax reform. These priorities are:

1. a significantly lower and globally competitive corporate tax rate;
2. a competitive territorial tax system, and
3. incentives for research and innovation which are competitive with incentives in other countries.

We believe that the Committee's corporate tax reform discussion draft of October 26, 2011 is a step in the right direction. The proposed 25% corporate rate would clearly be a positive move toward making the U.S. more attractive for manufacturing. However, we offer two comments on this proposed rate. First, as outlined above, other countries which have a developed semiconductor industry and infrastructure currently offer substantial tax and other incentives for new wafer fabrication facilities. They would tax the profits from a new facility at close to a zero rate for several years, and then tax at a rate materially below a 25% rate thereafter.ⁱⁱⁱ Second, a 25% rate might be less attractive if it is effectively offset by

changes to other provisions in the Code that affect manufacturers. Here, we again point to the example above of downstream business functions performed in foreign subsidiaries in support of a U.S. wafer fabrication facility.

Likewise, we believe that the draft's basic structure for a territorial tax system would appear to put U.S. companies on a level playing field with foreign competitors. This is significant to U.S.-based manufacturing because it would eliminate the "lock-out" effect under current law and free up capital for repatriation. However, we repeat once more our concerns that base erosion or minimum tax proposals might impose an additional tax cost on the earnings of our foreign subsidiaries that would not apply to "the competitor across the street." And in particular we are concerned that some of the base erosion proposals single out foreign subsidiaries that own intellectual property and/or have low foreign tax rates. These proposals are troubling because the semiconductor industry is rich in valuable intellectual property,^{iv} we derive substantial income from the property, and because it is common that, as a result of the tax policies of other countries, foreign semiconductor manufacturing and R&D operations have low effective tax rates. Low tax cost is part of the semiconductor industry's competitive landscape outside of the U.S., and it extends to all companies, not just U.S. owned subsidiaries. Therefore, depending on facts and circumstances, it is possible for a base erosion provision to place a semiconductor company in a worse competitive position than one under which tax reform never occurred.

Our third priority for tax reform is a call for incentives for research and innovation which are competitive with incentives in other countries. As noted above, the semiconductor industry is a research intensive industry. R&D for both products and manufacturing processes is the lifeline for maintaining the leading edge that U.S. companies occupy in our industry. Today, most of our R&D is conducted in the U.S., and that is healthy for the U.S. economy, its technology infrastructure and its manufacturing. There is a natural linkage between R&D operations and manufacturing operations, and companies find advantages in the two being located in close proximity. And, just as with wafer fabrication operations, other countries have also established attractive and effective incentives for R&D. The Committee is aware that the U.S. credit for research and experimentation has, once again, expired, and even when it has been in effect, it has over the years become mediocre when compared to R&D incentives offered in other countries.^v We urge the committee to extend the credit as soon as possible and not wait to

include it as a part of fundamental tax reform. Moreover, as a part of tax reform, we urge the Committee to consider expanding the credit to include other significant costs that companies routinely incur as a part of their R&D, for example, depreciation expense.^{vi}

The Committee is probably also aware that nine other countries have enacted a patent box^{vii} incentive for R&D. A well constructed patent or innovation box could serve as an additional incentive for R&D and manufacturing in the U.S.

Lastly, as mentioned previously, we believe it is possible for the U.S. to establish a more attractive framework for domestic manufacturing under either a low rate/broad base approach to tax reform or an approach that offers targeted incentives for manufacturing. It is of course possible that tax reform will consist of a combination of a somewhat lower rate and incentives.^{viii} If policymakers prefer to explore the latter approach, there are probably several effective ways to enhance section 199 to make the U.S. more attractive for manufacturing. .

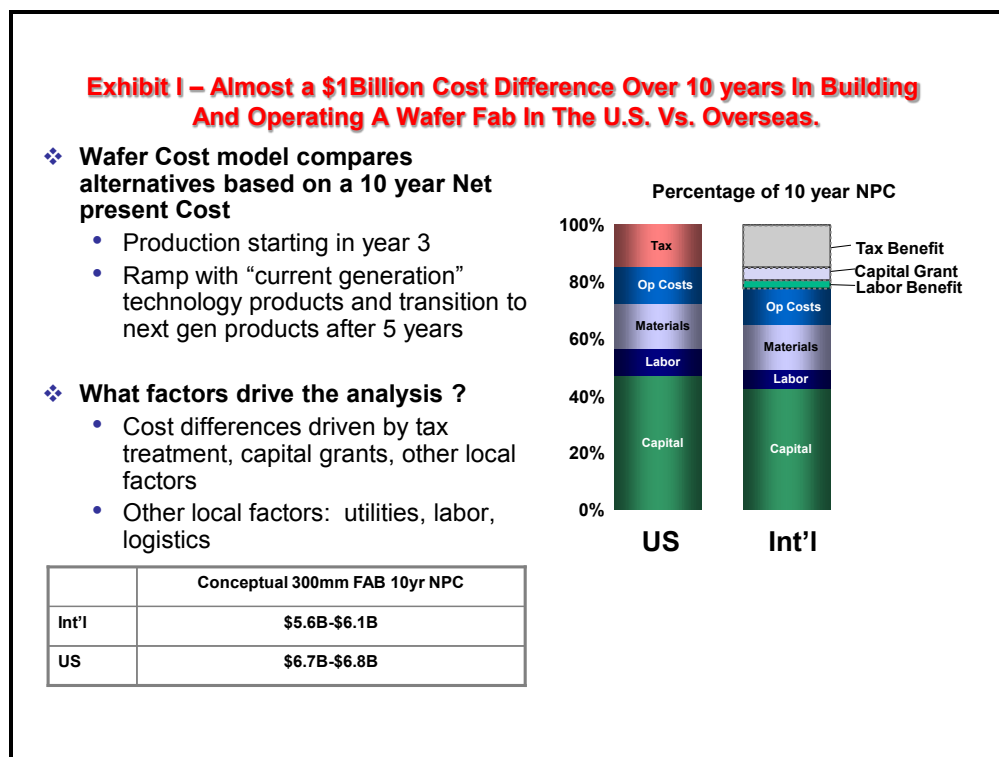
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We appreciate this opportunity to provide the Committee with these comments. We hope they are useful. Our member companies have extensive experience in how other countries frame their tax systems to attract manufacturing. We offer ourselves as a resource for Committee staff to explore any aspect of these comments further.

ⁱ The analysis was included in a March 14, 2012 letter from SIA to the Subcommittee on Select Revenue Measures. The letter provided SIA's comments on the November 17, 2011 hearing by the Subcommittee

on the Ways and Means discussion draft for tax reform. An excerpt from that letter which illustrates the \$1 billion cost differential is as follows:

An example of this advantage is in Exhibit I below. It is an analysis prepared several years ago that illustrates the cost differential of a wafer fabrication operation located in the U.S. vs. one located in a country that offers a tax holiday.



This analysis shows that there is almost a one billion dollar cost advantage in operating the facility in the foreign location. It is based a 10 year net present cost; it assumes production starting in the third year with “current generation” technology products and a transition to the next generation of products after five years. The cost differences result from tax savings, capital grants and other factors such as labor, utilities and logistics. Note, however, that the overwhelming cost advantage is the tax savings.

ii These are the statutory rates in some of the countries with significant semiconductor operations. Several of these countries would also offer tax holidays or other significant tax incentives for investing in a wafer fabrication facility.

Country	Statutory Rate %
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Ireland	12.5
Hong Kong	16.5
Taiwan	17
Singapore	17
Israel	24
Korea	24.2
Malaysia	25
China	25

iii We do not propose that the U.S. joins other countries in offering income tax holidays for wafer fabrication facilities. We describe this practice by other countries so that the Committee has a realistic presentation of the competitive landscape for semiconductor manufacturing.

iv We believe that the tax policy concern associated with a foreign subsidiary's ownership of intellectual property should be an inquiry into how the property was acquired, and not simply a policy of taxing it because it exists. The IRS has a long list of tools currently available for detecting whether a foreign subsidiary's IP was acquired through improper intercompany transactions, and then assessing any tax due. These tools include, for example, tax return disclosure procedures; "the commensurate with income" rule under section 482 which allows the IRS some degree of hindsight as it audits intercompany pricing; requirements that a taxpayer prepare a contemporaneous pricing study that supports its intercompany pricing policies; tax treaty processes for the exchange of taxpayer information between governments and rules administered by the IRS that establish minimum quality standards for tax opinions issued by practitioners.

v A recent report concludes that the United States currently ranks 27th in tax incentive generosity, out of a total of 42 countries studied. See Information Technology & Innovation Foundation, "*We're #27!: The United States Lags Far Behind in R&D Tax Incentive Generosity*" (July 2012), available at <http://www2.itif.org/2012-were-27-b-index-tax.pdf>

vi Depreciation was excluded from the definition of qualified research expenditures when the credit was initially enacted in 1981 because of the investment tax credit that was also in effect at the time. Absent this exclusion, a taxpayer could have obtained two tax credits for purchasing an asset that was used in R&D. The investment tax credit was repealed under the Tax Reform Act of 1986. Thus, the concern that a taxpayer could purchase an R&D asset and get two credits is obsolete.

vii Nine countries currently have a patent box: Belgium, Hungary, China, France, Ireland, Luxembourg, the Netherlands, Spain, and Switzerland. The UK has a patent box incentive that becomes effective in 2013.

viii For example, the President's framework for tax reform calls for a 28% corporate rate and a continuation of the section 199 deduction, which would provide a rate of approximately 25% for manufacturing. Additionally, the framework proposes an additional incentive for "advanced manufacturing".